Atty Dkt. No.: GRUE003

USSN: 09/269,874

## I. AMENDMENTS

## IN THE CLAIMS

Please enter the amendments to claims 42, 45, 46, and 49, as shown below.

1-41. (Canceled)



42. (Currently Amended) A method for producing a complete gp190/MSP1 protein of a *Plasmodium*, comprising expressing a nucleotide sequence encoding the complete gp190/MSP1 protein in a single [an] expression vector, wherein the adenine and thymine (AT) [AT] content of the expressed nucleotide sequence encoding the complete gp190/MPS1 protein is less than the AT content of a naturally occurring nucleotide sequence encoding a gp190/MPS1 protein.

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- 43. (Original) The method of claim 42, wherein the *Plasmodium* is a strain of *Plasmodium* falciparum.
- 44. (Original) The method of claim 43, wherein the strain of *Plasmodium falciparum* is *P. falciparum* strain PFB-1.

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- 45. (Currently Amended) The method of claim 42, wherein the AT content is reduced from about 74% to about 55%.
- 46. (Currently Amended) The method of claim 42, wherein the nucleotide sequence encoding the complete gp190/MSP1 is set forth in SEQ ID NO [denoted gp190s in Figure 3C].
- 47. (Original) The method of claim 42, wherein the nucleotide sequence encoding a gp190/MSP1 protein further comprises a nucleotide sequence encoding an attachment signal.
- 48. (Original) The method of claim 42, wherein the nucleotide sequence encoding a gp190/MSP1 protein further comprises a nucleotide sequence encoding a signal peptide.

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49. (Currently Amended) The method of claim 42, wherein nucleotide sequence encodes a gp190/MSPI having the amino acid sequence selected from the group consisting of amino acids 1-1639 of SEQ ID NO:3, 1-1621 of SEQ ID NO:3, and 20-1621 of SEQ ID NO:3 [, depicted in Figure 3C].

## 51-52.\ (Withdrawn)

- 53. (Priginal) The method of claim 42, wherein the expression vector is selected from the group consisting of dPS56RBSII, pBi-5, and ppTMCS.
- 54. (Original) The method claim 42, wherein the nucleotide sequence is expressed in an *Escherichia coli* (E. coli) strain.
  - 55. (Original) The method of claim 54, wherein the E. coli strain is DH5alphaZ1.
- 56. (Original) The method of claim 42, wherein the nucleotide sequence is expressed in an expression system selected from the group consisting of HeLa cells and CHO cells.
- 57. (Original) The method of claim 42, wherein the nucleotide sequence is expressed in an expression system selected from the group consisting of *Toxoplasma gondii* and *Leishmania*.

58-82. (Withdrawn)